



VACCINATION OF SMALLPOX RESPONSE TEAMS

GENERAL INFORMATION

After the events of September 11, 2001, there is heightened concern that smallpox virus could be used as a bioterrorism weapon in the United States. The federal government is implementing measures to strengthen national and state preparedness for an intentional release of smallpox. This preparation may include voluntary smallpox vaccinations for healthcare workers who would be the first to investigate, respond to and treat smallpox cases. Immunizing these workers will protect them against smallpox and allow them to feel comfortable treating patients who may have smallpox. The goal is to provide uninterrupted care for smallpox patients until more healthcare workers can be vaccinated to share the healthcare duties.

About the Vaccine

The vaccine is made from a virus called *vaccinia*, which is a “pox”-type virus related to smallpox. The smallpox vaccine contains live vaccinia virus – not dead virus like many other vaccines. For that reason, the vaccination site must be cared for carefully to prevent the virus from spreading. **The vaccine does not contain the smallpox virus and cannot give you smallpox.**

Receiving the Vaccine

The vaccine is given using a bifurcated (two-pronged) needle that is dipped into the vaccine solution. When removed, the needle retains a droplet of the vaccine. The needle is used to prick the skin 15 times in a few seconds. The pricking is not deep, but it will cause a sore spot and one or two droplets of blood to form. The vaccine usually is given in the upper arm. If the vaccination is successful, a red and itchy bump develops at the vaccine site in three or four days. In the first week, the bump becomes a large blister, fills with pus and begins to drain. During the second week, the blister begins to dry up and a scab forms. The scab falls off in the third week, leaving a small scar. People who are being vaccinated for the first time likely will have a stronger reaction than those who are being revaccinated.

Post-Vaccination Monitoring

Those who receive the vaccine will be monitored closely for side effects and reactions and to verify that the vaccination was successful (i.e., a “take”).

How the Vaccine Could Affect Those You Come in Contact With

Because the virus is live, it can spread from the vaccine site to other parts of the body or to other people. This can be prevented through proper care of the vaccination site (e.g., hand washing, covering the site in the case of healthcare providers involved in direct patient care and careful disposal of used dressings). Vaccinia is spread by touching a vaccination site before it has healed or by touching dressings or clothing that have become contaminated with live virus from the vaccination site. Vaccinia is not spread through the air.

Potential Side Effects

Although there are side effects and risks associated with the smallpox vaccine, most people experience normal, usually mild reactions. These reactions usually go away without treatment and include:

- The arm receiving the vaccination may be sore and red where the vaccine was given.
- The glands in the armpits may become large and sore.
- The vaccinated person may run a low fever.
- One out of three people may feel bad enough to miss work, school or recreational activity, or may have trouble sleeping.

However, other people experience reactions ranging from serious to life threatening. In the past, about 1,000 of every one million people vaccinated for the first time experienced reactions that, while not life-threatening, required medical attention. In addition, between 14 and 52 people out of every one million people vaccinated for the first time experienced potentially life-threatening reactions to the vaccine. Based on past experience, it is estimated that one or two people in one million who receive the vaccine may die as a result.

Who Should Not Receive the Vaccine

Some people are at greater risk for serious side effects from the smallpox vaccine. **Individuals who have any of the following conditions, or who live with someone who has one of these conditions, should NOT get the smallpox vaccine unless they have been exposed to the smallpox virus.** These contraindications include:

- Eczema or atopic dermatitis. (This is true even if the condition is not currently active, is mild or was experienced as a child.)
- Skin conditions such as burns, chickenpox, shingles, impetigo, herpes, severe acne or psoriasis. (People who have any of these conditions should not get the vaccine until they have healed completely.)
- Weakened immune system. (Cancer, treatment for cancer, an organ transplant, HIV, or medications to treat autoimmune disorders and other illnesses can weaken the immune system.)
- Pregnancy or plans to become pregnant within one month of vaccination.

In addition, individuals should not get the smallpox vaccine if they:

- Are allergic to the vaccine or any of its ingredients.
- Have a moderate or severe short-term illness. (These people should wait until they are completely recovered to get the vaccine.)
- Are currently breastfeeding.
- Are younger than 18.

For more information, visit www.cdc.gov or www.health.state.nd.us, or call the Centers for Disease Control and Prevention's public response hotline at 888.246.2675 (English); 866.874.2646 (hearing impaired); or 888.246.2857 (Spanish).

This fact sheet was developed in cooperation with the CDC and Fargo-Cass Public Health.